

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Cancelled)

2. (Currently Amended) A fuel injection valve comprising, a plate member having a plurality of injection holes penetrating the plate member in the thickness direction thereof, a valve seat located at an upstream side of the plate member in the direction of fuel flow, a valve body which is movable to effect opening and closing of a fuel passage in connection with the valve seat, and a driving means for driving the valve body, wherein a flat portion is provided between the respective injection holes on ~~the a first~~ face of the plate member in the fuel passage facing toward the upstream side of the plate member, as well as and wherein a plurality of groovegrooves are formed in the flat portion along the circumferential direction around the respective injection holes, such that said grooves are recessed in said flat portion relative to openings of the injection holes in said flat portion.

3. (Previously Presented) A fuel injection valve according to claim 2, wherein the plural number of injection holes in the plate member are separated by the flat portion, and the distance between the groove formed around an injection hole and the injection hole is smaller than the length of the flat portion formed between the injection holes.

4. (Previously Presented) A fuel injection valve according to claim 2, wherein the plural number of injection holes in the plate member are separated by the flat portion, and the grooves provided in connection with the respective injection holes on the face of the plate member have a circular shape.

5. (Previously Presented) A fuel injection valve according to claim 2, wherein the plural number of injection holes in the plate member are separated by the flat portion, and the grooves provided in connection with the respective injection holes on the face of the plate member have a shape such that, as seen in vertical cross section, the grooves form a V-shape.

6. (Previously Presented) A fuel injection valve according to claim 5, wherein an inclination angle of the inner wall near each injection hole of the V-shaped grooves provided in connection with the respective injection holes on the face of the plate member is large in comparison with the inclination angle of the inner wall thereof remote from the injection hole.

7. (Currently Amended) An internal combustion engine comprising, a cylinder, a piston which reciprocates in the cylinder, an air intake means which introduces air into the cylinder, an exhaust means which exhausts combustion gas from the cylinder, a fuel injection valve which directly injects fuel into the cylinder, a fuel supply means which supplies fuel from a fuel tank to the fuel injection valve, and an ignition device which ignites a mixture gas of the air introduced by the intake means into the cylinder and the fuel injected by the fuel injection valve into the cylinder, wherein the fuel injection valve has a plate member having a plurality of injection holes penetrating the plate member in the thickness direction thereof, a valve seat located at the upstream side of the injection hole in the direction of fuel

flow, a valve body which is movable to effect opening and closing of a fuel passage in connection with the valve seat, and a driving means for driving the valve body, wherein a flat portion is provided between the respective injection holes on ~~the~~ a first face of the plate member in the fuel passage facing toward the upstream side of the plate member, and wherein as well as a plurality of groovegrooves are formed in the flat portion along the circumferential direction around the respective injection holes, such that said grooves are recessed in said flat portion relative to openings of the injection holes in said flat portion.

8. (New) A fuel injection valve according to claim 2, wherein the groove is formed by a plurality of groove portions arranged discontinuously in the circumferential direction thereof such that one groove portion is disposed so as to face another groove portion while sandwiching each of the injection holes.

9. (New) A fuel injection valve according to claim 2, wherein said grooves are annular.

10. (New) A fuel injection valve according to claim 7, wherein said grooves are annular.